REMARKS

PRELIMINARY REMARKS

The present application sets forth Claims 1-10, where claims 7 and 8 have been withdrawn in response to a 35 U.S.C. §121 restriction requirement. Examiner has rejected claims 1,4-6, 9 and 10 under 35 U.S.C. §102(e) as being anticipated by Fukuda (USP 6,295,002). Examiner has rejected claim 2 under 35 U.S.C. §112 as being indefinite. Examiner has also objected to claim 3, but indicated that claim 3 would be allowable if claim 3 was rewritten in independent form including all of the limitations pf the base claim and any intervening claims.

Applicant is most appreciative to Examiner for the detail offered in the Office Action.

APPLICANT'S RESPONSE AND AMENDMENTS

Applicant notes that for a claim to be anticipated under 35 U.S.C. §102, each and every claim limitation must be found within the cited prior art reference and arranged as required by the claim. MPEP §2131.

CLAIM 1 IS NOT ANTICIPATED NOR RENDERED OBVIOUS BY FUKUDA

FUKUDA does not disclose all of the instant elements of Claim 1. With respect to Applicant's Claim 1, Examiner has directed Applicant's attention to FUKUDA Column 3, lines 1-32 for Applicant's step (a); to FUKUDA Column 2, lines 47-63 for Applicant's step (b); and to FUKUDA Columns 3-4, lines 39-23 for Applicant's step (c). Applicant respectfully disagrees with Examiner's application and reasoning of FUKUDA for the following reasons.

FUKUDA is particularly suited for an arrangement consisting of two devices (a battery-powered device and a remote device) wherein there is first established a bi-directional, wireless communication. The present invention does not require two physically-separated devices, a pre-existing bi-directional wireless communication arrangement, or a display to be situated on the particular second (non-battery-based) device. FUKUDA consists of elements and is required to be of a particular arrangement that is antithetic to the present invention and is of an arranged manner that has limitations not consistent with Applicant's invention. Applicant urges Examiner to remove the rejections based on FUKUDA from consideration as these rejections are not based on prior art that is applicable to Applicant's invention.

FUKUDA does not disclose the use of "*intelligent* battery equipped with a current measurement circuit" (as is used in Applicant's invention") [emphasis added].

FUKUDA does not disclose "a method of calculating *capacity* of an *intelligent battery* equipped with a current measurement circuit to measure an electric current value on which calculation of battery capacity is based," as recited in Claim 1. Rather FUKUDA sets forth a method for determining *remaining power* in a *battery* via the use of an instruction means *disposed in the second device* (non-battery device) to *wirelessly* determine the *timing* and cause *the first device to detect remaining power* via a power detection means. Ref. FUKUDA Columns 2-3, lines 43-60. More specifically, FUKUDA expressly notes that "the second device becomes capable of displaying the information on the *battery voltage* of the first device" (Column 2, lines 10-12) [emphasis added].

The present invention *does not detect remaining power* of a battery via a wireless, timed instruction means in relation to detection means located with a battery. The present invention *determines an electric current value of an intelligent battery upon which a calculation of battery capacity of the*

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intelligent battery is based. <u>Clearly</u>, the determination and detection steps, as well as the corresponding means required thereunder, of each are quite different and require different elements and arrangements in order to successfully perform their requisite requirements. Clearly, FUKUDA does not anticipate nor render obvious the present invention, just on this aspect alone.

FUKUDA does not disclose "(a) sending, from a system to the intelligent battery, a notice that it shifts to a low electric power consumption mode, and a consumption electric current value or a consumption electric power value in the low electric power consumption mode unique to the system, when the system using the intelligent battery shifts from a normal operational mode to the low electric power consumption mode, " as recited in Claim1. Instead, FUKUDA transmits timing instructions from a wireless device (a non-battery second device) not a system; and those instructions are transmitted to the battery-powered device (the first device) *but only* if and after a wireless bi-directional path is first established, whereby the instructions sent <u>then merely inform</u> the detection means of the first device to detect the remaining power *at certain time intervals*. <u>*FUKUDA does not*</u> instruct or provide notice to an intelligent battery *to shift* its power consumption mode or similar. FUKUDA does not even remotely teach or suggest that the instructions sent from a wireless device are akin to those of the present invention in form, content, function or purpose. Clearly, FUKUDA does not anticipate nor render obvious the present invention, just on this aspect alone.

FUKUDA does not disclose "(b) performing subtraction of capacity data of the intelligent battery based on the received consumption electric current value or consumption electric power value in the low electric power consumption mode, and disabling capacity calculation by the current measurement circuit" as recited in Claim 1. FUKUDA does not envision nor does FUKUDA disclose the subtraction step nor the disabling step of the present invention, likely as the capacity calculation of the present invention is not

required by, conceived of or even suggested in FUKUDA. However, these steps are necessary for the present invention as claimed. Clearly, FUKUDA does not anticipate nor render obvious the present invention, just on this aspect alone.

FUKUDA does not disclose "(c) sending, from the system to the intelligent battery, a notice of shifting to the normal operational mode, and stopping the subtraction of capacity data based on the consumption electric current value or consumption electric power value in the low electric power consumption mode, and enabling capacity calculation by the current measurement circuit, when the system using the intelligent battery shifts from the low electric power consumption mode to the normal operational mode," as recited in Claim 1. FUKUDA does not teach nor does FUKUDA disclose sending such a notice and stopping the subtraction and enabling the calculation when the system has shifted from low mode to operational mode. Applicant speculates that it is very likely that as the capacity calculation and the intelligent battery aspects of the present invention are not required by, conceived of or even suggested in FUKUDA, FUKUDA also could not nor does anticipate nor render obvious the present invention. FUKUDA is quite different than the present invention..

As such Applicant asserts that Claim 1 is neither anticipated by nor rendered obvious by FUKUDA.

CLAIM 6 IS NOT ANTICIPATED NOR RENDERED OBVIOUS BY FUKUDA

FUKUDA does not disclose all of the instant elements of Claim 6. With respect to Applicant's Claim 6, Examiner has directed Applicant's attention to FUKUDA Column 3, lines 39-60 for Applicant's step (a); to FUKUDA Columns 3-4, lines 39-15 for Applicant's step (b); and to FUKUDA Column 2, lines 48-67 for Applicant's step (c). Applicant respectfully disagrees with Examiner's application and reasoning of FUKUDA for the following reasons.

Applicant incorporates each and all of the arguments set forth above below as though they were presented herein as well.

FUKUDA does not disclose "a method of calculating *capacity* of an *intelligent battery* equipped with a current measurement circuit to measure an electric current value on which calculation of battery capacity is based," as recited in Claim 1. Rather FUKUDA sets forth a method for determining *remaining power* in a *battery* via the use of an instruction means *disposed in the second device* (non-battery device) to *wirelessly* determine the *timing* and cause *the first device to detect remaining power* via a power detection means. Ref. FUKUDA Columns 2-3, lines 43-60. More specifically, FUKUDA expressly notes that "the second device becomes capable of displaying the information on the *battery voltage* of the first device" (Column 2, lines 10-12) [emphasis added].

The present invention *does not detect remaining power* of a battery via a wireless, timed instruction means in relation to detection means located with a battery. The present invention *determines an electric current value of an intelligent battery upon which a calculation of battery capacity of the*

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intelligent battery is based. <u>Clearly</u>, the determination and detection steps, as well as the corresponding means required thereunder, of each are quite different and require different elements and arrangements in order to successfully perform their requisite requirements. Clearly, FUKUDA does not anticipate nor render obvious the present invention, just on this aspect alone.

FUKUDA does not disclose "(a) on a shift of the system from a normal operational mode to a low electric power consumption mode and thereafter to the normal operational mode, calculating on the system side consumption battery capacity data assumed to have been spent during the low electric power consumption mode based on a consumption electric current value or a consumption electric power value in the low electric power consumption mode unique to the system." as recited in Claim 1. Instead, FUKUDA suggests reducing the frequency of checking battery power by altering the timing requirements instantiated from the instruction means (Col. 3, lines 48-50) *but only* if and after a wireless bi-directional path is first established. Again, the instruction means of FUKUDA serve but to <u>merely inform</u> the detection means of the first device to detect the remaining power *at certain time intervals*. <u>*FUKUDA*</u> <u>*does not*</u> instruct or provide notice to an intelligent battery *to shift* its power consumption mode or similar. Certainly, therefore, FUKUDA does not anticipate or render obvious Applicant's step occurring on result of a shift of the system in operational mode, as FUKUDA does not teach, suggest or motivate one to even contemplate such. Clearly, FUKUDA does not anticipate nor render obvious the present invention, just on this aspect alone.

FUKUDA does not disclose "(b) sending consumption battery capacity data from the system side to said intelligent battery side," as recited in Claim 1. Instead, FUKUDA, though absent an intelligent battery, does describe transmitting a *power* result (*not capacity*) of the detection means from the first

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device to a second device *for display* via a transmission means – *and where such is ONLY done via bi-directional wireless connection*. <u>Clearly</u>, FUKUDA is quite different than the present invention.

FUKUDA does not disclose "(c) on said intelligent battery side, calculating current battery capacity based on said consumption battery capacity data," as recited in Claim 1. FUKUDA does not teach nor does FUKUDA disclose such a step as consumption battery data is not used nor envisioned in FUKUDA, and therefore no calculation for battery capacity, whether on a battery side or non-battery side is taught. Therefore, FUKUDA does not anticipate nor render obvious the present invention. FUKUDA is quite different than the present invention..

As such Applicant asserts that Claim 6 is neither anticipated by nor rendered obvious by FUKUDA.

CLAIMS 4, 5 AND 9 ARE NOT ANTICIPATED NOR RENDERED OBVIOUS BY FUKUDA

FUKUDA does not disclose all of the instant elements of Claims 4, 5 and 9. With respect to Applicant's Claims 4, 5 and 9, Examiner has directed Applicant's attention to FUKUDA Column 2, lines 43-67 for Applicant's step (a); to FUKUDA Column 11, lines 47-55 for Applicant's step (b); and to FUKUDA Figure 1, unit 43(a) for Applicant's step (c). Examiner has also directed Applicant to FUKUDA Column 3, lines 38-67 as well. Applicant respectfully disagrees with Examiner's application and reasoning of FUKUDA for the following reasons.

Applicant incorporates each and all of the arguments set forth above below as though they were presented herein as well.

FUKUDA does not disclose all of the instant elements of Claims 4, 5 and 9. With respect to FUKUDA points directed by Examiner, Applicant respectfully disagrees with Examiner's rejections and responds as follows:

FUKUDA Column 2, lines 43-67 has already been precisely and exhaustively discussed already.

FUKUDA Column 11, lines 47-55 sets forth a combination of values necessary for estimation, and not for calculation. FUKUDA seeks to combinatorily estimate what may be remaining capacity as the wireless transmission of FUKUDA constantly consumes power, and in doing so, FUKUDA remains concerned that its interval checks of battery power may cause additional use of battery life, aside from the obvious errors which FUKUDA does not address. The present invention does not need to estimate as set forth by FUKUDA, but rather claim 4 clearly states that the present invention *calculates capacity when in*

the low power consumption mode. <u>Clearly</u>, this is not what is anticipated by nor rendered obvious in view of FUKUDA.

FUKUDA Figure 1, unit 43(a) identifies a central processing unit (CPU) provided with a microcomputer (43), where the CPU, 43a, operates in response to an instruction for voltage detection, discriminates between operations made at the key operation section 32, and performs various other tasks. Applicants take note that FUKUDA expressly states the *its CPU operates in response to an instruction for* <u>*voltage*</u> *detection,* which is not what is claims by the present invention (Ref. FUKUDA, Column 7, lines 31-38).

Column 3, lines 38-67 has also already been precisely and exhaustively discussed already.

As such Applicant asserts that Claims 4, 5 and 9 are neither anticipated by nor rendered obvious by FUKUDA.

CLAIM 10 IS NOT ANTICIPATED NOR RENDERED OBVIOUS BY FUKUDA

FUKUDA does not disclose all of the instant elements of Claim 10. With respect to Applicant's Claim 10, Examiner has directed Applicant's attention to FUKUDA's Abstract for Applicant's step (a); to FUKUDA Column 3, lines 1-35 for Applicant's step (b); and to FUKUDA Column 3, lines 40-67 for Applicant's step (c). Examiner has also directed Applicant to FUKUDA Columns 3-4, lines 38-43 and Column 2, lines 46-67 as well. Applicant respectfully disagrees with Examiner's application and reasoning of FUKUDA for the following reasons.

Applicant incorporates each and all of the arguments set forth above below as though they were presented herein as well.

FUKUDA does not disclose all of the instant elements of Claim 10. With respect to FUKUDA points directed by Examiner, Applicant respectfully disagrees with Examiner's rejections and responds that each and all of the cited text of FUKUDA has already been precisely and exhaustively discussed. Such arguments are also applicable to claim 10 of the instant applicant.

CLAIM 2 AMENDED TO CORRECT INFORMALITIES

Applicant has amended claim 2 to correct informalities and believes that all §112 rejections are traversed. Applicant has removed the trademark reference which is unnecessary. Applicant respectfully requests Examiner to remove such rejections.

CLAIM 3 OBJECTION

Applicant is appreciative to Examiner to object and provide further guidance as to claim 3. However, as Applicant asserts all claims stand ready for allowance, Applicant believes there is no need to rewrite Claim 3 in independent form at this time.

REQUEST TO PROCEED TO ALLOWANCE

For each and all of the reasoning set forth above, and as Applicant believes each and all of Examiner's objections and rejections have been traversed, Applicant requests that the application be reconsidered, that all claims as amended are now allowable, and a timely notice of allowance be issued.

ADMINISTRATIVE MATTERS

Applicant requests that Examiner ensure future correspondence be directed to the Attorney undersigned hereto, and that the record be updated to reflect the undersigned as the **Attorney of Record** for all matters henceforth. The Examiner is invited to contact the undersigned for any and all matters related to this Application.

Respectfully submitted,

By: _____

J. BRUCE SCHELKOPF
Registration No.: 43,901
Attorney for Applicants
IBM CORPORATION
Department 9CCA/Bldg. 002-2
P.O. Box 12195
Research Triangle Park, NC 27709
(919) 543-4753
schelkop@us.ibm.com